EXHIBIT L

Fraunhofer IIS
http://www.iis.fraunhofer.de:80/EN/bf/amm/mp3history/20jac.jsp

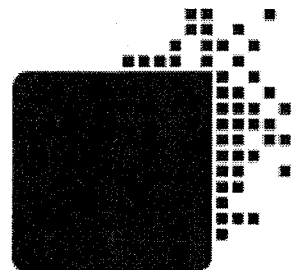## 20 Years
of Audio Coding
at Fraunhofer IIS

mp3 developer's team together with Dr.
Guenther Beckstein, Bavarian State
Minister of the Interior (3rd from left)

20 Years of Audio Coding at Fraunhofer IIS

In 2007 Fraunhofer IIS celebrates 20 successful years of developing audio coding algorithms. Today, the German institute is the worldwide leading independent research lab in the field of high quality audio compression technologies for the modern media world.

In May 1987, developers at Fraunhofer IIS achieved a first important milestone: They presented a real-time implementation of the "Low Complexity Adaptive Transform Codec", in short LC-ATC. That way, music could be compressed in real-time for the first time – a huge advantage as before compression of audio signals took hours even using high performance computers. Preliminary work started already in the 70s with the goal of compressing music for transmission over phone lines.

World-renowned formats such as mp3 or MPEG-4 AAC evolved from the early beginnings. Thanks to these developments, Fraunhofer IIS enjoys an excellent reputation as the leading independent research lab in the field of audio coding.

For more information, please see our brochure "20 Years of Audio Coding at Fraunhofer IIS" (PDF, 3.6MB).

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Profile

The Fraunhofer Institute for Integrated Circuits IIS performs contract research and development for industry and public authorities. Headed by the collegial board of directors, Professor Dr.-Ing. Heinz Gerhäuser (Executive Director) and Professor Dr.-Ing. Günter Elst, Fraunhofer IIS researchers develop microelectronic systems and devices along with the required integrated circuits and software.

Established in 1985, the Erlangen-based Institute for Integrated Circuits IIS in its current configuration – with locations in Nürnberg, Fürth and Dresden – ranks first among the Fraunhofer Institutes concerning headcount and revenues.

Fraunhofer IIS is recognized for its research programs into microelectronics, information technology, telecommunications, audio and multimedia technology, digital radio, digital cinema, RF technology, satellite navigation, medical engineering, logistics, and mechanical and industrial automation. The researchers develop wireless communication systems, particularly digital broadcasting systems, as prototypes ready to go into commercial production. Technological ground and pillar are the audio and video coding schemes and their adoption as international standards.

MP3 – the audio coding technique developed by Fraunhofer IIS – has received worldwide acclaim. Another pioneering research program is digital cinema camera technology. Image acquisition and pattern recognition technology are key elements of automated quality assurance, production automation and medical engineering – Fraunhofer IIS develops the required intelligent image sensors, high speed cameras systems and technology for ultra fine focus X-ray computer tomography.

Further information: ▶ **Download Profile PDF**

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